PB-217 168

SEWAGE AND WATER WORKS CONSTRUCTION - 1964

Public Health Service
Washington, D. C.

1964

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE
5285 Port Royal Road, Springfield Va. 22151

PB 217 168

SEWAGE AND WATER WORKS CONSTRUCTION 1964

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
U S Department of Commerce
Springfield VA 22151

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

17

SEWAGE AND WATER WORKS CONSTRUCTION 1964

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service
Division of Water Supply and Pollution Control
Washington, D.C. 20201

I

Related Publications

Sewage Treatment Works Contract Awards, 1952–1957
Public Health Service Publication No. 633

Sewage and Water Works Construction, 1957
Public Health Service Publication No. 608

Sewage and Water Works Construction, 1958
Public Health Service Publication No. 673

Sewage and Water Works Construction, 1959 edition
Public Health Service Publication No. 758

Sewage and Water Works Construction, 1960 edition
Public Health Service Publication No. 758

Sewage and Water Works Construction, 1961 edition
Public Health Service Publication No. 758

Sewage and Water Works Construction, 1962 edition
Public Health Service Publication No. 758

Sewage and Water Works Construction, 1963 edition
Public Health Service Publication No. 758

Public Health Service Publication No. 758
1964 Edition

I

PREFACE

This annual report of "Sewage and Water Works Construction 1964" is published as one part of the basic data program required and authorized in Public Law 660 (as amended by Public Law 87–88), the Federal Water Pollution Control Act.

The data published herein provide a continuing and ready source of information and reference as to how successfully the national needs in municipal water supply and pollution control are being met through construction of the necessary physical facilities.

This publication also establishes important year-to-year cost trends in the national economic picture in the three types of public works construction involved. Such data are valuable not only to Federal, State and local government authorities and officials responsible for providing water supplies and for controlling pollution, but are also valuable to the building and contracting trades and to the engineering profession.

This report was prepared by Kenneth H. Jenkins, Chief Statistician and Florence G. Simmons, Statistical Assistant, under the direction of Richard S. Green, Sanitary Engineer Director and Chief of the Basic Data Branch, Division of Water Supply and Pollution Control.

CONTENTS

	Page
Preface	III
Section I—GENERAL PRESENTATION OF SEWAGE AND WATERWORKS CONTRACT AWARDS	1
A. Contract Awards—1964	1
B. Method of Data Collection	1
Table 1. Annual Contract Awards—1952–1964	2
Table 2. Monthly Contract Awards—1964	2
Table 3. Total Contract Awards by States—1964	3
Table 4. Distributed Total Contract Awards by States—1964	4
Section II—CONTRACT AWARDS—BASIC DATA—1964	5
A. Sewage Treatment Works Construction	5
Table 5. By Population Size Groups	5
Table 6. By Contract Size Groups	6
Table 7. By Drainage Basins	6
Table 8. By States	7
B. Collecting Sewer Construction	8
Table 9. By Population Size Groups	8
Table 10. By Contract Size Groups	8
Table 11. By Drainage Basins	8
C. Waterworks Construction	9
Table 12. By Population Size Groups	9
Table 13. By Contract Size Groups	10
Table 14. By Drainage Basins	10
Table 15. By States	11
D. Combination Construction	12
Table 16. By Population Size Groups	12
Table 17. By Contract Size Groups	12
Table 18. By Drainage Basins	12

SECTION I—GENERAL PRESENTATION OF SEWAGE AND WATERWORKS CONTRACT AWARDS

A. CONTRACT AWARDS—1964

Contracts awarded in the sewage and waterworks field in calendar year 1964 amounted to almost $1.6 billion, broken down as shown below in millions.

Sewage treatment	$513.4
Collecting sewers	395.7
Waterworks	654.4
Total	1,563.5

Contracts for waterworks were 11 percent above 1963 and the highest on record. Sewage treatment contracts were 24 percent under the previous year and those contracts for collecting sewers were down 2 percent. The total value of all three categories is about 7.5 percent below 1963 but is the second highest figure of record.

On a constant dollar basis (1957–59), the decline was 9.2 percent reflecting the increases in construction costs.

Each of the above totals is based upon an identified and an apportioned figure. The identified contracts are those for which the descriptive information available clearly states a single type of construction. Those contracts that cover more than a single type are called "combination" contracts. These combination contracts are then apportioned to the sewage treatment works, collecting sewers, and waterworks categories on the basis of known national experience in each of these.

B. METHOD OF DATA COLLECTION

The contract award data presented in this publication for the year 1964 result from the careful examination of over 100,000 contract notifications in the sewage and waterworks construction and related fields. All notifications of similar contracts awarded in the same geographical area are checked to reduce the chance of duplication. Certain contracts, primarily those covering sewage treatment plants, are checked and verified by the various State water pollution control agencies.

The data on which this report is based were obtained from:

1. F. W. Dodge Corporation, daily reports on construction in the sewage and waterworks fields in the 38 Eastern States.
2. Various construction news periodicals, such as, *Construction News Bulletin, Pacific Architect and Builder, Rocky Mountain Construction*, and *Southwest Builder and Contractor*.

Practically all of the information for the 38 Eastern States is obtained from daily reports of the F. W. Dodge Corp.

The data presented are composed of contracts awarded by municipalities, special districts, other governmental bodies, and various institutions, resorts, recreation centers, etc. A few contracts are included for industries where the cost of such facilities can be readily identified, and where it is possible to ascertain that the facilities are primarily for the disposal of sanitary wastes or for domestic waterworks facilities.

TABLE 1.—*Annual contract awards—sewage treatment works, collecting sewers, and waterworks—1952–64*

[Millions of dollars]

Year	Sewage treatment		Collecting sewers		Waterworks		Total	
	Actual	1957–59	Actual	1957–59	Actual	1957–59	Actual	1957–59
1952	137	178	225	296	227	303	589	777
1953	187	231	286	353	283	358	756	942
1954	229	278	244	294	293	353	766	923
1955	208	232	301	345	394	453	896	1,030
1956	354	385	305	331	441	485	1,100	1,201
1957	351	362	247	254	457	481	1,055	1,097
1958	369	385	310	310	419	419	1,118	1,114
1959	349	336	336	320	504	480	1,189	1,136
1960	350	339	350	339	645	597	1,363	1,275
1961	449	419	380	352	573	516	1,402	1,287
1962	545	505	320	291	507	441	1,373	1,237
1963	679	612	405	358	590	500	1,674	1,470
1964	514	459	396	344	654	532	1,564	1,335

NOTES:

1. Constant dollars on a 1957–59 base were computed as follows: Sewers from PHS Sewer Construction Cost Index (PHS Publication 1132); sewage treatment a composite 45 percent sewers (Publication 1132) and 55 percent PHS Sewage Treatment Plant Construction Cost Index (PHS Publication 1009); water from *Engineering News-Record* construction cost index changed to a 1957–59 base.

2. The Public Health Service sewage treatment data prior to 1957 are composed of identified contracts only. Beginning with 1957, the figures include an amount apportioned to sewage treatment works from the "combination" contracts.

3. Data on collecting sewers prior to 1957 are obtained by subtracting Public Health Service sewage treatment data from the U.S. Department of Commerce sewer data which includes sanitary and storm sewerage systems as well as sewage treatment works. Beginning with 1957, the data for collecting sewers were assembled by the Public Health Service and do not include storm sewers.

4. The waterworks data prior to 1957 are based on records maintained by the U.S. Department of Commerce. Beginning with 1957, data were obtained by the Public Health Service.

TABLE 2.—*Monthly contract awards—sewage treatment works, collecting sewers, and waterworks—1964*

[Millions of dollars]

Month	Sewage treatment		Collecting sewers		Waterworks		Total	
	Actual	Cumulative	Actual	Cumulative	Actual	Cumulative	Actual	Cumulative
January	43.7	43.7	35.0	35.0	51.4	51.4	130.1	130.1
February	32.9	76.6	33.3	68.3	39.6	91.0	105.8	235.9
March	43.5	120.1	26.9	95.2	62.3	153.3	132.7	368.6
April	31.0	151.1	32.8	128.0	55.6	208.9	119.4	488.0
May	42.6	193.7	39.5	167.5	72.0	280.9	154.1	642.1
June	56.4	250.1	44.7	212.2	68.1	349.0	169.2	811.3
July	60.0	310.1	33.7	245.9	62.9	411.9	156.6	967.9
August	38.7	348.8	27.5	273.4	52.6	464.5	118.8	1,086.7
September	34.1	382.9	37.8	311.2	57.7	522.2	129.6	1,216.3
October	28.7	411.6	27.8	339.0	47.0	569.2	103.5	1,319.8
November	32.3	443.9	28.8	367.8	44.8	614.0	106.9	1,425.7
December	69.6	513.5	27.9	395.7	40.4	654.4	137.9	1,563.6

TABLE 3.—*1964 contract awards by States*

State	Total		Sewage treatment		Sewers		Water		Combinations	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Alabama	141	32, 722, 943	28	8, 655, 302	31	8, 541, 821	66	14, 115, 184	16	1, 410, 636
Alaska	37	5, 091, 179	7	578, 833	12	1, 864, 967	14	1, 523, 726	4	1, 723, 653
Arizona	55	10, 725, 202	10	5, 819, 894	18	1, 393, 542	24	3, 053, 775	3	457, 991
Arkansas	211	23, 155, 628	53	6, 243, 242	25	2, 058, 642	118	12, 555, 095	15	2, 298, 649
California	930	119, 419, 563	101	16, 105, 196	419	28, 911, 168	359	65, 340, 487	51	9, 062, 712
Colorado	92	49, 013, 972	15	19, 617, 878	13	701, 457	59	28, 271, 231	5	423, 406
Connecticut	91	18, 173, 451	17	7, 147, 714	52	9, 248, 982	10	674, 166	12	1, 102, 589
Delaware	36	3, 608, 452	13	2, 264, 382	15	1, 194, 727	7	179, 724	1	29, 619
District of Columbia	34	5, 614, 609	5	3, 895, 838	16	1, 219, 067	5	219, 878	8	279, 826
Florida	299	51, 336, 124	45	7, 378, 557	75	14, 549, 076	141	25, 079, 571	38	4, 337, 920
Georgia	211	32, 702, 779	52	11, 346, 097	30	3, 844, 829	108	14, 703, 227	21	2, 808, 626
Hawaii	16	7, 948, 997	14	5, 038, 132	2	910, 865				
Idaho	24	1, 277, 237	5	342, 503	5	154, 126	12	535, 686	2	244, 922
Illinois	526	65, 299, 331	99	19, 205, 377	119	14, 159, 635	274	27, 934, 012	34	4, 000, 307
Indiana	278	33, 197, 235	47	8, 872, 622	95	13, 892, 605	132	9, 486, 302	4	973, 706
Iowa	204	12, 311, 723	37	5, 487, 904	84	2, 743, 906	74	3, 166, 268	9	913, 645
Kansas	248	18, 101, 987	49	3, 370, 070	86	4, 173, 999	108	10, 477, 641	5	80, 277
Kentucky	405	38, 654, 366	111	11, 262, 233	130	8, 325, 123	152	16, 390, 008	12	2, 677, 022
Louisiana	208	31, 063, 322	33	9, 332, 728	28	3, 058, 367	119	14, 017, 900	28	4, 654, 327
Maine	36	5, 387, 599	15	4, 251, 553	9	359, 464	10	701, 492	2	75, 090
Maryland	634	38, 215, 916	54	10, 725, 922	103	6, 296, 872	115	9, 072, 615	362	12, 120, 507
Massachusetts	287	37, 601, 485	28	9, 122, 169	96	9, 591, 492	153	18, 128, 199	10	759, 625
Michigan	514	95, 526, 204	64	16, 604, 723	161	25, 045, 748	232	49, 726, 099	57	4, 149, 634
Minnesota	330	33, 756, 985	58	6, 890, 097	70	9, 898, 274	127	9, 218, 499	75	7, 750, 20[illegible]
Mississippi	177	13, 122, 554	30	2, 970, 452	14	1, 082, 274	111	6, 165, 521	22	2, 924, 307
Missouri	311	38, 283, 195	57	19, 174, 762	92	6, 615, 887	145	10, 372, 736	17	2, 119, 810
Montana	44	2, 282, 074	10	833, 519	9	254, 845	18	666, 838	7	526, 872
Nebraska	205	10, 448, 183	29	4, 262, 918	77	3, 175, 001	86	2, 424, 190	13	586, 074
Nevada	23	7, 807, 751	6	6, 084, 772	3	69, 518	14	1, 653, 461		
New Hampshire	26	3, 213, 428	9	2, 310, 879	4	460, 722	12	356, 172	1	85, 655
New Jersey	354	67, 512, 191	72	21, 410, 197	124	25, 067, 999	141	15, 277, 815	17	5, 756, 310
New Mexico	64	10, 738, 436	16	2, 666, 185	2	261, 745	25	2, 996, 421	21	4, 814, 085
New York	711	104, 413, 828	70	38, 718, 771	173	23, 008, 357	440	40, 435, 133	28	2, 251, 567
North Carolina	292	50, 927, 736	85	25, 153, 457	51	5, 969, 551	122	14, 790, 674	34	5, 014, 054
North Dakota	48	2, 241, 481	7	214, 668	7	192, 313	24	1, 261, 245	10	573, 235
Ohio	551	75, 737, 409	82	18, 707, 051	174	26, 633, 190	261	27, 898, 339	34	2, 528, 829
Oklahoma	287	27, 548, 760	37	5, 041, 404	41	2, 598, 300	193	18, 777, 792	16	1, 131, 264
Oregon	116	10, 967, 670	23	3, 354, 334	57	4, 730, 676	32	2, 585, 657	4	297, 003
Pennsylvania	508	77, 020, 644	85	18, 678, 164	183	28, 115, 077	217	26, 570, 411	23	3, 656, 992
Puerto Rico	23	4, 092, 253	8	2, 308, 995	1	448, 731	11	784, 173	3	572, 354
Rhode Island	48	5, 825, 356	10	1, 748, 136	12	1, 323, 058	26	2, 754, 162		
South Carolina	110	12, 329, 321	31	4, 093, 364	15	1, 675, 521	55	5, 520, 052	9	1, 040, 384
South Dakota	54	1, 544, 330	19	470, 707	8	196, 118	23	770, 654	4	106, 851
Tennessee	230	45, 521, 261	44	11, 085, 166	72	10, 721, 919	108	23, 031, 708	6	682, 468
Texas	766	86, 898, 215	104	21, 102, 750	120	12, 156, 334	436	43, 215, 252	106	10, 423, 879
Utah	33	5, 142, 916	9	1, 327, 223	4	205, 476	15	3, 138, 061	5	472, 156
Vermont	8	2, 326, 053	8	2, 326, 053						
Virginia	222	26, 716, 863	68	9, 682, 914	79	7, 054, 634	58	9, 051, 630	17	927, 685
Washington	203	32, 726, 240	41	16, 042, 366	56	7, 667, 785	98	7, 595, 461	8	1, 420, 628
West Virginia	157	27, 874, 508	63	11, 846, 444	32	5, 356, 873	58	9, 978, 320	4	692, 871
Wisconsin	485	38, 903, 913	42	14, 301, 913	170	11, 667, 158	182	8, 058, 431	121	4, 876, 411
Wyoming	12	2, 829, 373	1	35, 810	1	169, 464	8	2, 505, 096	2	119, 003
Total	11, 915	1, 563, 562, 251	2, 026	465, 510, 270	3, 275	358, 967, 150	5, 308	623, 147, 250	1, 306	115, 937, 581

TABLE 4.—*1964 contract awards (distributed) by States*

State	Total	Sewage treatment	Sewers	Water
Alabama	32,722,943	9,236,123	8,998,842	14,495,978
Alaska	5,691,179	1,290,980	2,411,181	1,989,018
Arizona	10,725,202	6,009,118	1,538,676	3,177,408
Arkansas	23,155,628	7,192,956	2,787,058	13,175,604
California	119,419,563	19,849,561	31,783,081	67,786,921
Colorado	49,013,972	19,792,813	835,632	28,385,527
Connecticut	18,173,451	7,603,281	9,598,365	971,805
Delaware	3,668,452	2,276,619	1,204,113	187,720
District of Columbia	5,614,600	4,011,451	1,307,742	295,416
Florida	51,336,124	9,170,819	15,923,734	26,241,571
Georgia	32,702,779	12,508,514	4,734,864	15,461,401
Hawaii	5,948,997	5,038,132	910,865	
Idaho	1,277,237	443,085	231,740	602,402
Illinois	65,299,331	20,856,150	15,427,305	29,013,876
Indiana	33,197,235	9,275,746	14,171,690	9,749,699
Iowa	12,311,723	5,865,387	3,033,434	3,412,902
Kansas	18,103,987	3,403,237	4,199,438	10,499,312
Kentucky	38,654,286	12,368,276	9,173,453	17,112,657
Louisiana	31,053,322	11,255,717	4,533,292	15,274,313
Maine	5,367,589	4,282,577	363,260	721,752
Maryland	38,215,916	15,733,651	10,137,779	12,344,486
Massachusetts	37,601,495	9,436,017	9,832,212	18,333,256
Michigan	95,526,201	18,319,193	26,360,739	50,846,272
Minnesota	33,756,985	10,082,694	12,354,292	11,310,629
Mississippi	13,122,554	4,178,604	1,988,967	6,954,923
Missouri	38,283,195	20,050,586	7,287,641	10,944,968
Montana	2,282,074	1,051,202	421,807	809,065
Nebraska	10,448,183	4,505,061	3,360,724	2,582,398
Nevada	7,807,751	6,084,772	69,518	1,653,461
New Hampshire	3,213,428	2,346,256	487,885	379,295
New Jersey	67,512,191	23,768,484	26,892,005	16,831,702
New Mexico	10,730,436	4,655,180	1,787,296	4,295,960
New York	106,413,828	39,649,082	23,721,893	41,042,933
North Carolina	50,927,736	27,225,072	7,558,671	16,144,193
North Dakota	2,241,481	451,527	373,987	1,415,967
Ohio	75,737,409	19,751,866	27,434,559	28,550,984
Oklahoma	27,548,780	5,508,799	2,956,790	19,083,171
Oregon	10,967,670	3,477,044	4,824,794	2,665,832
Pennsylvania	77,020,644	20,189,093	29,273,953	27,557,598
Puerto Rico	4,002,253	2,543,470	630,106	918,677
Rhode Island	5,825,356	1,748,136	1,323,056	2,754,162
South Carolina	12,329,321	4,523,211	2,695,212	5,800,898
South Dakota	1,544,330	514,854	229,978	799,498
Tennessee	48,521,261	11,367,111	10,930,170	23,215,980
Texas	86,868,215	23,409,497	15,459,591	46,029,127
Utah	5,142,916	1,522,300	355,089	3,265,517
Vermont	2,326,053	2,326,053		
Virginia	26,716,863	10,098,198	7,348,611	9,302,054
Washington	32,726,240	16,629,315	8,117,972	7,978,953
West Virginia	27,874,508	12,132,712	5,576,439	10,165,357
Wisconsin	38,963,913	16,316,659	13,212,460	9,374,794
Wyoming	2,829,373	84,977	207,178	2,537,221
Total	1,563,562,251	513,411,230	395,709,988	654,444,033

SECTION II—CONTRACT AWARDS—BASIC DATA—1964

This section presents the basic data as compiled; combination projects have not been apportioned. Tables of contract awards by population size groups, contract size groups, drainage basins and States are included.

The population size group tables do not refer to the population served. They represent the size of the community in which each contract was awarded. The population size groups of some contracts were unknown; these contracts consist primarily of schools, hospitals, military bases, and parks. The cumulative percentages shown in these tables are based on the known population groups.

A. SEWAGE TREATMENT WORKS CONSTRUCTION

The sewage treatment works are presented in two categories, namely, NEW PLANT and OTHER. The "NEW PLANT" classification includes stabilization ponds and appurtenances. The "OTHER" category includes replacements and additions to existing treatment plants, interceptors, and outfalls. This category also includes contracts whose costs cannot be separated between "New Plant" and "Other." Therefore, the "Other" classification may include a few new plants.

In 1964 the level of contracts awarded for construction of sewage treatment works in the United States reached a level of $513.4 million. Of this amount $465.5 million covered contracts identified as to specific location and type of construction. The following tables, 5 through 8, inclusive, relate only to contracts individually identified for sewage treatment facilities.

Lists of the locations of contract awards for sewage treatment works are available upon request. Write to Chief, Basic Data Branch, Division of Water Supply and Pollution Control, U.S. Department of Health, Education, and Welfare, Public Health Service, Washington, D.C., 20201.

TABLE 5. *Contract awards—sewage treatment works construction—1964—by population size groups*

Population size group	Total				New plant [1]				Other [1]			
	Number	Dollars	Cumulative (percent) [2]		Number	Dollars	Cumulative (percent) [2]		Number	Dollars	Cumulative (percent) [2]	
			Number	Dollars			Number	Dollars			Number	Dollars
Unknown population size	105	7,408,220			56	3,815,823			49	3,592,497		
Under 500	189	8,805,743	7.8	1.9	89	3,111,783	15.0	2.2	60	5,693,960	4.5	1.8
500–1,000	236	19,902,348	19.6	6.1	112	8,952,105	33.8	8.6	114	10,510,243	13.1	5.1
1,000–2,500	365	42,441,364	39.6	15.4	153	19,774,954	59.5	22.8	232	22,666,430	30.6	12.2
2,500–5,000	220	35,985,634	51.1	23.3	75	14,478,799	72.1	33.2	145	21,506,835	41.5	19.0
5,000–10,000	212	52,149,344	62.1	34.7	55	18,636,252	81.3	46.6	157	33,460,092	53.3	29.5
10,000–25,000	228	67,660,114	74.0	49.4	34	15,994,818	87.0	58.0	194	51,475,296	67.9	45.7
25,000–50,000	108	39,918,822	79.6	58.1	20	12,620,257	90.4	67.0	88	27,279,565	74.5	54.3
50,000–100,000	121	45,267,680	85.9	68.0	23	16,522,303	94.3	78.8	98	28,865,186	81.9	63.4
100,000–250,000	79	29,053,247	90.0	74.3	16	8,630,741	97.0	85.0	63	20,422,506	86.7	69.8
250,000 and over	103	117,440,825	100.0	100.0	18	20,954,609	100.0	100.0	175	96,686,217	100.0	100.0
Total	2,026	465,510,270			651	143,523,443			1,375	321,986,827		

[1] Interceptors, outfalls, additions, enlargements, and alterations to plants, etc.

[2] Cumulative percentages are based on the known population groups.

TABLE 6.—*Contract awards—sewage treatment works construction—1964—by contract size groups*

Contract size group (dollars)	Total				New plant				Other [1]			
	Number	Dollars	Cumulative (percent)		Number	Dollars	Cumulative (percent)		Number	Dollars	Cumulative (percent)	
			Number	Dollars			Number	Dollars			Number	Dollars
Under 10,000	98	573, 172	4.7	0.1	23	124, 467	3.5	0.1	72	448, 705	5.2	0.1
10,000–25,000	274	4, 779, 969	18.2	1.1	100	1, 729, 623	18.9	1.3	174	3, 050, 336	17.9	1.0
25,000–50,000	354	13, 000, 018	35.7	3.9	116	4, 318, 411	36.7	4.3	238	8, 681, 607	35.2	3.7
50,000–100,000	378	27, 781, 813	54.4	9.9	128	9, 233, 024	56.4	10.7	250	18, 548, 789	53.4	9.5
100,000–250,000	478	78, 751, 087	78.0	26.8	161	25, 963, 734	81.1	28.8	317	52, 787, 353	76.5	25.9
250,000–500,000	298	83, 074, 573	89.7	44.6	63	22, 296, 160	90.8	44.3	175	60, 778, 413	89.2	44.8
500,000–1,000,000	132	88, 562, 056	96.2	63.6	34	22, 535, 211	96.0	60.0	98	66, 046, 845	96.3	65.3
1,000,000–5,000,000	73	122, 129, 707	99.8	89.8	25	40, 022, 813	99.8	87.9	48	82, 105, 894	99.8	90.8
Over 5,000,000	4	46, 837, 885	100.0	100.0	1	17, 300, 000	100.0	100.0	3	29, 537, 885	100.0	100.0
Total	2, 026	465, 510, 270			651	143, 523, 443			1, 375	321, 986, 827		

[1] Interceptors, outfalls, additions, enlargements, and alterations to plants, etc.

TABLE 7.—*Contract awards—sewage treatment works construction—1964—by drainage basins*

Drainage basin	Total		New plant		Other [1]	
	Number	Dollars	Number	Dollars	Number	Dollars
Northeast	131	37, 108, 940	35	15, 469, 507	96	23, 639, 433
North Atlantic	278	87, 244, 743	66	18, 863, 423	212	68, 381, 320
Southeast	242	53, 171, 846	94	20, 670, 856	148	32, 500, 990
Tennessee River	48	11, 264, 807	17	4, 210, 568	31	7, 054, 239
Ohio River	298	48, 397, 539	115	17, 131, 905	183	31, 265, 634
Lake Erie	40	10, 601, 946	9	1, 563 681	31	9, 038, 465
Upper Mississippi	206	40, 207, 358	74	10, 464, 130	132	29, 743, 228
Western Great Lakes	95	29, 921, 512	30	7, 068, 604	65	22, 852, 908
Missouri River	153	40, 866, 410	61	24, 031, 928	92	16, 834, 482
Southwest-Lower Mississippi	194	28, 143, 851	73	9, 684, 945	121	18, 458, 906
Colorado River	23	7, 305, 108	7	827, 214	16	6, 477, 894
Western Gulf	110	21, 085, 666	33	4, 834, 249	77	16, 251, 417
Pacific Northwest	71	20, 126, 820	15	2, 066, 207	56	18, 060, 613
California	94	15, 286, 887	14	2, 187, 395	80	13, 099, 492
Great Basin	14	6, 852, 877	4	5, 076, 936	10	1, 775, 941
Alaska	7	578, 833	2	149, 905	5	428, 928
Hawaii	14	5, 038, 132	2	1, 222, 190	12	3, 815, 942
Puerto Rico	8	2, 306, 995			8	2, 306, 995
Total	2, 026	465, 510, 270	651	143, 523, 443	1, 375	321, 986, 827

[1] Interceptors, outfalls, additions, enlargements, and alterations to plants, etc.

TABLE 8.—*Contract awards—sewage treatment works construction—1964—by States*

State	Total		New plant		Other [1]	
	Number	Dollars	Number	Dollars	Number	Dollars
Alabama	28	8,655,302	12	4,341,628	16	4,313,674
Alaska	7	578,833	2	149,905	5	428,928
Arizona	10	5,819,894	1	60,446	9	5,759,448
Arkansas	53	6,243,242	20	1,758,729	33	4,484,513
California	101	16,105,196	16	2,571,197	85	13,533,999
Colorado	15	19,617,878	8	18,060,787	7	1,557,091
Connecticut	17	7,147,714	4	2,440,709	13	4,707,005
Delaware	13	2,264,382	3	275,402	10	1,988,980
District of Columbia	5	3,895,838			5	3,895,838
Florida	45	7,378,557	16	2,702,113	29	4,676,444
Georgia	52	11,346,097	19	3,625,261	33	7,720,836
Hawaii	14	5,038,132	2	1,222,190	12	3,815,942
Idaho	5	342,503	1	23,840	4	318,663
Illinois	99	19,205,377	30	5,139,634	69	14,065,743
Indiana	47	8,872,622	18	2,359,383	29	6,513,237
Iowa	37	5,487,904	15	2,294,098	22	3,193,806
Kansas	49	3,370,070	21	1,119,049	28	2,251,021
Kentucky	111	11,262,233	39	5,089,803	72	6,172,430
Louisiana	33	9,332,728	10	3,268,864	23	6,063,864
Maine	15	4,251,553	6	1,462,309	9	2,789,244
Maryland	54	10,725,922	12	3,260,034	42	7,465,888
Massachusetts	28	9,122,169	3	2,844,601	25	6,277,568
Michigan	64	16,604,723	20	5,434,417	44	11,170,306
Minnesota	58	6,890,007	24	2,334,098	34	4,555,909
Mississippi	30	2,970,452	17	1,262,833	13	1,707,619
Missouri	57	19,174,762	20	2,172,599	37	17,002,163
Montana	10	833,519	3	255,480	7	578,039
Nebraska	29	4,262,918	15	2,901,679	14	1,361,239
Nevada	6	6,084,772	2	4,974,982	4	1,109,790
New Hampshire	9	2,310,879	1	26,471	8	2,284,408
New Jersey	72	21,410,197	15	6,043,783	57	15,366,414
New Mexico	16	2,666,185	5	164,691	11	2,501,494
New York	70	38,718,771	26	8,162,188	44	30,556,583
North Carolina	85	25,153,457	31	10,995,060	54	14,158,397
North Dakota	7	214,688	2	39,538	5	175,150
Ohio	82	18,707,051	27	4,229,566	55	14,477,485
Oklahoma	37	5,041,404	14	1,822,998	23	3,218,406
Oregon	23	3,354,334	7	1,555,383	16	1,798,951
Pennsylvania	85	18,678,164	29	8,256,114	56	10,422,050
Puerto Rico	8	2,306,995			8	2,306,995
Rhode Island	10	1,748,136	3	86,851	7	1,661,285
South Carolina	31	4,093,364	14	1,230,163	17	2,863,201
South Dakota	19	470,707	8	170,004	11	300,703
Tennessee	44	11,065,166	17	2,989,569	27	8,095,597
Texas	104	21,102,750	32	6,193,213	72	14,909,537
Utah	9	1,327,223	2	399,123	7	928,100
Vermont	8	2,326,053	2	613,941	6	1,712,112
Virginia	68	9,682,914	18	2,266,531	50	7,416,383
Washington	41	16,042,366	7	486,984	34	15,555,382
West Virginia	63	11,846,444	19	2,777,837	44	9,068,607
Wisconsin	42	14,301,913	13	1,787,363	29	12,514,550
Wyoming	1	35,810			1	35,810
Total	2,026	465,510,270	651	143,523,443	1,375	321,986,827

[1] Interceptors, outfalls, additions, enlargements, and alterations to plants, etc.

B. COLLECTING SEWER CONSTRUCTION

Collecting sewer construction for 1964 totaled $359.7 million. Tables 9, 10, and 11 analyze the contract award data which was specified as purely collecting sewers (i.e. $359.0 million), and do not reflect any portion of the combination projects. The tabulation of the collecting sewer contract awards by States appears in table 3 of section I.

The collecting sewer classification does *not* include storm sewers.

TABLE 9.—*Contract awards—collecting sewer construction—1964—by population size groups*

Population size group	Collecting sewers			
	Number	Dollars	Cumulative percent[1]	
			Number	Dollars
Unknown population size	97	3,841,504		
Under 500	104	9,452,784	3.3	2.7
500–1,000	108	12,224,120	6.7	6.1
1,000–2,500	204	23,775,792	13.1	12.8
2,500–5,000	216	29,293,182	19.9	21.0
5,000–10,000	278	39,160,278	28.6	32.0
10,000–25,000	515	65,486,191	44.8	50.4
25,000–50,000	331	34,745,028	55.2	60.2
50,000–100,000	277	32,284,912	63.9	69.3
100,000–250,000	327	31,747,667	74.2	78.2
250,000 and over	820	76,985,692	100.0	100.0
Total	3,275	358,967,150		

[1] Cumulative percentages are based on the known population groups.

TABLE 10.—*Contract awards—collecting sewer construction—1964—by contract size groups*

Contract size group (dollars)	Collecting sewers			
	Number	Dollars	Cumulative percent	
			Number	Dollars
Under 10,000	524	2,794,211	16.0	0.8
10,000–25,000	808	13,449,720	40.7	4.5
25,000–50,000	606	21,787,466	59.2	10.6
50,000–100,000	529	38,020,724	75.4	21.2
100,000–250,000	470	74,396,505	89.8	41.9
250,000–500,000	202	70,580,948	96.0	61.6
500,000–1,000,000	95	66,214,503	98.9	80.0
1,000,000–5,000,000	41	71,723,075	100.0	100.0
Over 5,000,000			100.0	100.0
Total	3,275	358,967,150		

TABLE 11.—*Contract awards—collecting sewer construction—1964—by drainage basins*

Drainage basin	Collecting sewers		Drainage basin	Collecting sewers	
	Number	Dollars		Number	Dollars
Northeast	277	33,934,269	Colorado River	24	1,696,908
North Atlantic	518	70,891,646	Western Gulf	109	11,564,635
Southeast	204	33,046,610	Pacific Northwest	116	12,511,859
Tennessee River	43	9,892,340	California	412	28,633,704
Ohio River	418	47,740,089	Great Basin	12	441,904
Lake Erie	87	12,668,749	Alaska	12	1,864,967
Upper Mississippi	327	30,160,316	Hawaii	2	910,865
Western Great Lakes	310	38,395,504	Puerto Rico	1	448,731
Missouri River	221	11,967,059			
Southwest-Lower Mississippi	182	12,196,908	Total	3,275	358,967,150

C. WATERWORKS CONSTRUCTION

The waterworks data are broken down into four categories, namely, SOURCE, TREATMENT, DISTRIBUTION, and MISCELLANEOUS. The "SOURCE" group includes contracts awarded for wells, surface source development, and transmission lines. The "TREATMENT" area includes contracts for plants and auxiliary facilities. The "DISTRIBUTION" category includes contracts for ground storage, elevated tanks, and distribution systems. The "MISCELLANEOUS" classification includes contracts for pumping facilities and for water systems in general. When it is not possible to code a contract that is known to pertain to water into source, treatment, or distribution then it is included in the totals for miscellaneous.

Contract awards for waterworks construction in 1964, including an apportioned amount from the combination contracts, totaled $654.4 million. The tables following refer only to contracts that pertain exclusively to waterworks (i.e., $623.1 million).

TABLE 12.—*Contract awards—waterworks construction—1964—by population size groups*

Population size group	Total		Source		Treatment		Distribution		Miscellaneous [1]	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Unknown population size	276	20, 990, 961	77	6, 710, 049	10	1, 819, 190	130	6, 482, 063	59	5, 879, 679
Under 500	557	33, 201, 530	130	3, 149, 893	37	2, 806, 165	284	16, 020, 507	106	11, 224, 965
500–1,000	381	26, 897, 786	69	3, 347, 364	36	3, 187, 322	203	10, 895, 941	73	9, 467, 161
1,000–2,500	642	42, 593, 780	140	6, 483, 902	61	7, 489, 535	330	18, 287, 273	111	10, 333, 070
2,500–5,000	498	44, 969, 633	102	11, 017, 518	41	8, 646, 483	280	18, 489, 443	75	6, 816, 189
5,000–10,000	556	73, 756, 822	114	7, 710, 284	41	23, 004, 764	318	29, 158, 359	83	13, 883, 415
10,000–25,000	761	96, 462, 181	175	30, 893, 612	50	16, 695, 071	438	34, 995, 554	98	13, 877, 944
25,000–50,000	399	74, 511, 970	85	30, 134, 149	17	11, 062, 520	242	24, 444, 161	55	8, 871, 140
50,000–100,000	322	58, 610, 484	88	19, 737, 563	12	3, 630, 414	158	23, 844, 536	64	11, 397, 971
100,000–250,000	257	56, 964, 755	51	18, 396, 142	19	23, 826, 424	151	11, 340, 266	36	3, 401, 921
250,000 and over	659	94, 287, 326	111	38, 331, 707	18	10, 950, 149	458	28, 128, 681	72	16, 876, 669
Total	5, 308	623, 147, 250	1, 142	175, 912, 273	342	113, 118, 037	2, 992	222, 086, 786	832	112, 030, 154

[1] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

TABLE 12A.—*Contract awards—waterworks construction—1964—by population size groups—cumulative percentages* [1]

Population size group	Total cumulative (percent)		Source cumulative (percent)		Treatment cumulative (percent)		Distribution cumulative (percent)		Miscellaneous [2] cumulative (percent)	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Unknown population size										
Under 500	11.0	5.5	12.2	1.8	11.1	2.5	9.9	7.4	13.7	10.5
500–1,000	18.6	9.9	18.6	3.8	21.9	5.3	17.0	12.4	23.1	19.4
1,000–2,500	31.3	17.0	31.8	7.6	40.3	12.1	28.5	20.9	37.5	29.2
2,500–5,000	41.2	24.5	41.4	14.1	52.7	19.8	38.3	29.5	47.2	35.6
5,000–10,000	52.3	36.7	52.1	18.7	65.0	40.5	49.4	43.0	57.9	48.7
10,000–25,000	67.4	52.7	68.5	37.0	80.1	55.5	64.7	59.3	70.6	61.8
25,000–50,000	75.3	65.1	76.5	54.8	85.2	65.4	73.2	70.6	77.7	70.1
50,000–100,000	81.7	74.8	84.7	66.4	88.8	68.7	78.7	81.7	86.0	80.8
100,000–250,000	86.9	84.3	89.5	77.3	94.5	90.1	83.9	86.9	90.6	84.1
250,000 and over	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] Cumulative percentages are based on the known population groups.

[2] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

TABLE 13.—*Contract awards—waterworks construction—1964—by contract size groups*

Contract size group (dollars)	Total		Source		Treatment		Distribution		Miscellaneous [1]	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Under 10,000	720	3,976,321	214	1,176,679	9	89,621	416	2,265,335	81	464,686
10,000–25,000	1,298	21,757,651	300	4,811,042	42	746,764	795	13,457,255	161	2,742,590
25,000–50,000	1,115	39,908,799	198	6,979,924	48	1,832,703	721	25,658,506	148	5,437,666
50,000–100,000	859	61,361,083	149	10,628,816	62	4,518,250	507	35,981,169	141	10,232,848
100,000–250,000	828	130,710,820	143	23,090,895	81	13,717,153	397	61,262,368	207	32,040,404
250,000–500,000	293	102,380,566	69	25,018,033	45	15,083,759	119	41,300,461	60	20,978,313
500,000–1,000,000	119	83,474,363	35	24,307,047	33	23,389,624	29	20,732,648	22	15,045,044
1,000,000–5,000,000	68	125,080,864	30	46,738,733	19	36,804,484	7	16,429,044	12	25,068,603
Over 5,000,000	8	54,496,783	4	32,541,104	3	16,955,679	1	5,000,000	----	----
Total	5,308	623,147,250	1,142	175,912,273	342	113,118,037	2,992	222,086,786	832	112,030,154

[1] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

TABLE 13A.—*Contract awards—waterworks construction—1964—by contract size groups—cumulative percentages*

Contract size group (dollars)	Total cumulative (percent)		Source cumulative (percent)		Treatment cumulative (percent)		Distribution cumulative (percent)		Miscellaneous [1] cumulative (percent)	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Under 10,000	13.6	0.6	18.7	0.7	2.6	0.1	13.9	1.0	9.7	0.4
10,000–25,000	38.1	4.1	45.0	3.4	14.9	0.8	40.5	7.1	29.1	2.8
25,000–50,000	59.1	10.5	62.3	7.4	28.9	2.4	64.6	18.7	46.9	7.7
50,000–100,000	75.3	20.3	75.3	13.4	47.0	6.4	81.5	34.9	63.8	16.8
100,000–250,000	90.9	41.3	87.8	26.9	70.7	18.5	94.8	62.5	88.7	45.4
250,000–500,000	96.4	57.7	93.8	41.1	83.9	31.8	98.8	81.1	95.9	64.1
500,000–1,000,000	98.6	71.1	96.9	54.9	93.5	52.5	99.8	90.4	98.5	77.5
1,000,000–5,000,000	99.9	91.2	99.5	81.5	99.1	85.0	100.0	97.8	99.9	99.9
Over 5,000,000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[1] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

TABLE 14.—*Contract awards—waterworks construction—1964—by drainage basins*

Drainage basin	Total		Source		Treatment		Distribution		Miscellaneous [1]	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Northeast	408	44,914,325	79	15,617,015	12	3,170,114	250	17,690,238	65	8,436,958
North Atlantic	676	69,180,847	153	17,189,429	16	12,950,373	414	26,687,776	93	12,353,269
Southeast	516	68,317,492	108	9,714,937	56	24,488,173	246	16,745,804	106	17,368,578
Tennessee River	97	21,492,545	10	2,338,475	13	4,114,338	56	11,337,034	18	3,662,678
Ohio River	620	65,942,523	93	7,540,822	72	15,753,343	370	32,256,348	85	10,392,010
Lake Erie	111	14,712,093	15	3,188,298	9	1,531,675	76	5,096,483	11	4,896,237
Upper Mississippi	520	41,283,483	114	5,736,411	44	7,734,155	282	22,219,249	80	5,593,668
Western Great Lakes	349	58,579,599	73	22,209,351	13	11,977,530	222	19,885,046	41	4,507,672
Missouri River	360	44,359,503	81	21,581,048	32	9,048,694	198	10,456,287	49	3,273,474
Southwest-Lower Mississippi	643	67,449,787	168	22,218,177	49	9,896,780	338	19,844,250	88	15,490,580
Colorado River	59	6,730,583	19	3,685,509	3	545,879	18	1,093,753	19	1,405,442
Western Gulf	415	38,953,394	108	13,772,933	11	2,232,776	258	17,608,603	45	5,339,082
Pacific Northwest	143	10,984,234	24	2,837,802	1	198,745	88	5,559,431	30	2,388,256
California	337	63,256,435	95	27,685,417	6	6,012,547	158	13,884,081	78	15,894,430
Great Basin	29	4,885,957	3	143,702	4	3,380,945	11	738,350	11	392,040
Alaska	14	1,523,726	3	35,132	1	81,980	5	1,060,115	5	346,529
Puerto Rico	11	764,173	2	362,815	----	----	2	123,958	7	277,400
Hawaii	2	46,851	1	35,000	----	----	----	----	1	11,851
Total	5,308	623,147,250	1,142	175,912,273	342	113,118,037	2,992	222,086,786	832	112,030,154

[1] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

TABLE 15.—*Contract awards—waterworks construction—1964—by States*

State	Total		Source		Treatment		Distribution		Miscellaneous [1]	
	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars	Number	Dollars
Alabama	66	14, 115, 184	9	1, 018, 040	9	4, 215, 326	30	6, 824, 834	18	2, 056, 984
Alaska	14	1, 523, 726	3	35, 132	1	81, 950	5	1, 060, 115	5	346, 529
Arizona	24	3, 053, 775	6	1, 931, 773			9	612, 239	9	509, 763
Arkansas	118	12, 555, 005	30	3, 503, 485	17	4, 542, 316	58	2, 598, 498	13	1, 910, 706
California	339	65, 340, 467	97	27, 726, 119	9	7, 109, 158	168	14, 350, 753	85	16, 094, 457
Colorado	59	28, 271, 231	18	19, 512, 305	5	3, 726, 101	17	2, 248, 899	19	2, 783, 836
Connecticut	10	674, 166	3	139, 597	1	73, 000	5	430, 019	1	31, 550
Delaware	7	179, 724	1	20, 000			3	76, 563	3	83, 161
District of Columbia	5	219, 878	2	125, 741			2	45, 389	1	48, 748
Florida	141	25, 070, 571	32	3, 487, 746	20	10, 891, 235	65	5, 718, 209	24	4, 973, 381
Georgia	108	14, 703, 227	21	2, 610, 121	12	4, 969, 838	57	4, 677, 465	18	2, 445, 803
Hawaii	2	46, 851	1	35, 000					1	11, 851
Idaho	12	535, 686	2	22, 750	1	198, 745	7	297, 928	2	16, 263
Illinois	274	27, 934, 012	49	5, 317, 288	24	5, 325, 343	156	13, 361, 808	45	3, 929, 573
Indiana	132	9, 486, 302	19	1, 833, 750	15	1, 396, 219	84	4, 795, 864	14	1, 460, 469
Iowa	74	3, 166, 268	19	484, 323	11	789, 419	33	1, 518, 161	11	374, 365
Kansas	108	10, 477, 641	19	1, 967, 285	10	3, 544, 466	56	2, 620, 282	23	2, 345, 608
Kentucky	152	16, 390, 062	22	1, 064, 361	26	4, 349, 943	87	7, 991, 236	17	2, 984, 468
Louisiana	119	14, 017, 900	31	4, 356, 134	10	1, 702, 889	67	6, 105, 564	11	1, 853, 313
Maine	10	701, 492	2	20, 405			6	269, 852	2	411, 235
Maryland	115	9, 072, 615	15	1, 215, 185	3	3, 551, 894	90	3, 579, 285	7	726, 251
Massachusetts	153	18, 128, 199	34	9, 328, 125	5	2, 806, 124	90	4, 687, 491	24	1, 306, 459
Michigan	232	49, 726, 099	50	19, 533, 547	9	11, 346, 997	143	15, 218, 682	30	3, 626, 873
Minnesota	127	9, 218, 499	40	595, 828	10	1, 861, 097	62	5, 938, 413	15	823, 161
Mississippi	111	6, 165, 521	38	905, 315	1	221, 433	57	3, 241, 725	15	1, 797, 048
Missouri	145	10, 372, 736	32	3, 237, 325	13	849, 451	75	4, 310, 106	25	1, 975, 854
Montana	18	666, 838	2	112, 669			11	413, 069	5	141, 100
Nebraska	86	2, 424, 190	21	508, 926	1	13, 872	59	1, 771, 791	5	129, 601
Nevada	14	1, 653, 461	8	1, 298, 000			2	94, 234	4	261, 227
New Hampshire	12	356, 172	4	83, 381			6	203, 721	2	69, 070
New Jersey	141	15, 277, 815	37	1, 709, 182	6	7, 031, 842	83	5, 094, 901	15	1, 441, 890
New Mexico	25	2, 996, 421	7	766, 485			10	1, 799, 255	8	430, 681
New York	440	40, 435, 133	90	9, 862, 869	7	309, 502	280	20, 698, 264	63	9, 564, 498
North Carolina	122	14, 790 674	23	2, 704, 020	15	3, 773, 954	57	3, 279, 049	27	5, 033, 651
North Dakota	24	1, 261, 245	5	162, 811	2	538, 472	14	400, 564	3	159, 398
Ohio	261	27, 868, 339	48	6, 158, 790	23	5, 024, 960	162	10, 628, 348	28	6, 056, 241
Oklahoma	193	18, 777, 792	40	3, 485, 179	13	2, 286, 049	115	5, 531, 694	25	7, 474, 870
Oregon	32	2, 585, 657	4	633, 308			19	1, 267, 702	9	684, 647
Pennsylvania	217	26, 570, 411	35	6, 974, 332	13	4, 637, 649	128	8, 160, 134	41	6, 798, 296
Puerto Rico	11	764, 173	2	362, 815			2	123, 958	7	277, 400
Rhode Island	26	2, 754, 162	7	825, 968	1	8, 544	13	1, 356, 934	5	862, 781
South Carolina	55	5, 520, 052	12	261, 146	3	2, 364, 370	28	1, 127, 967	10	1, 766, 569
South Dakota	23	770, 654	5	46, 302	2	61, 150	13	609, 731	3	53, 471
Tennessee	108	23, 031, 768	13	1, 679, 890	10	3, 150, 813	71	14, 980, 128	14	3, 240, 937
Texas	436	43, 215, 252	113	18, 518, 275	12	2, 358, 776	265	16, 974, 490	46	5, 363, 705
Utah	15	3, 138, 061			3	2, 535, 533	6	240, 228	6	362, 300
Vermont										
Virginia	58	9, 051, 630	15	3, 856, 231	4	1, 351, 831	26	2, 492, 748	13	1, 350, 820
Washington	98	7, 595, 461	18	2, 181, 744			61	3, 885, 690	19	1, 528, 027
West Virginia	58	9, 978, 320	7	2, 135, 871	8	2, 894, 465	28	2, 413, 751	15	2, 534, 233
Wisconsin	132	8, 058, 431	28	657, 520	4	479, 411	99	5 583, 877	21	1, 357, 623
Wyoming	8	2, 505, 066	4	1, 234, 854	1	703, 900	2	395, 172	1	171, 170
Total	5, 308	623, 147, 250	1, 142	175, 912, 273	342	113, 118, 037	2, 992	222, 086, 786	832	112, 030, 154

[1] This includes separate contracts for pumping facilities and other waterworks contracts that cover more than one of the above divisions.

D. COMBINATION CONSTRUCTION

Combination contracts are made up of projects that cover more than one of the three major categories: (1) Sewage treatment; (2) collecting sewers; and (3) waterworks. The combination contract awards by States appear in table 3 of section 1.

TABLE 16.—*Contract awards—combination construction—1964—by population size groups*

Population size group	Combinations [1]			
	Number	Dollars	Cumulative percent [2]	
			Number	Dollars
Unknown population size	68	2,847,646		
Under 500	64	4,423,674	5.2	4.9
500-1,000	75	8,293,501	11.3	11.2
1,000-2,500	110	14,003,020	20.2	23.6
2,500-5,000	83	8,446,137	26.9	31.1
5,000-10,000	88	11,848,701	34.0	41.6
10,000-25,000	131	16,682,668	44.6	56.3
25,000-50,000	93	9,208,454	52.1	64.4
50,000-100,000	61	8,726,104	57.0	72.1
100,000-250,000	78	11,719,086	63.3	82.5
250,00 and over	455	19,798,610	100.0	100.0
Total	1,306	115,937,581		

[1] This includes contracts whose descriptive information covers more than a single category of construction (e.g., sewage treatment, sewers, or waterworks).

[2] Cumulative percentages are based on the known population groups.

TABLE 17.—*Contract awards—combination construction—1964—by contract size groups*

Contract size group (dollars)	Combinations [1]			
	Number	Dollars	Cumulative percent	
			Number	Dollars
Under 10,000	209	1,295,598	16.0	1.1
10,000-25,000	325	5,867,176	40.0	5.9
25,000-50,000	267	9,413,426	61.3	14.0
50,000-100,000	204	14,775,276	76.9	26.7
100,000-250,000	102	22,460,537	92.4	54.7
250,000-500,000	68	22,598,358	97.6	74.2
500,000-1,000,000	21	13,254,078	99.2	85.6
1,000,000-5,000,000	10	16,573,134	100.0	99.9
Over 5,000,000			100.0	100.0
Total	1,306	115,937,581		

[1] This includes contracts whose descriptive information covers more than a single category of construction (e.g., sewage treatment, sewers, or waterworks).

TABLE 18.—*Contract awards—combination construction—1964—by drainage basins*

Drainage basin	Combinations [1]		Drainage basin	Combinations [1]	
	Number	Dollars		Number	Dollars
Northeast	44	3,892,612	Colorado River	0	1,244,251
North Atlantic	431	22,803,538	Western Gulf	117	14,139,378
Southeast	125	15,548,301	Pacific Northwest	15	2,122,477
Tennessee River	8	869,921	California	48	8,735,811
Ohio River	41	4,920,255	Great Basin	6	591,390
Lake Erie	19	1,986,062	Alaska	4	1,723,653
Upper Mississippi	161	14,915,413	Hawaii		
Western Great Lakes	143	7,781,784	Puerto Rico	3	572,354
Missouri River	44	3,499,928			
Southwest-Lower Mississippi	88	10,590,253	Total	1,306	115,937,581

[1] This includes contracts whose descriptive information covers more than one single category of construction (e.g., sewage treatment, sewers, or waterworks).

U.S. GOVERNMENT PRINTING OFFICE: 1965 O—795-005